Corrigendum

Corrigendum to "Kinetics of the photocatalytic disinfection of *Escherichia coli* suspensions" [Appl. Catal. B: Environ. 82 (2008) 27–36]

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The authors regret that the values of the kinetic parameters were published with errors. The reported values were obtained from the fitting of the dimensionless data C/C_0. Consequently, the values shown in Figs. 4–6, 8, 10–12 were $k' = k/C_0$ and $K' = K \times C_0^n$ instead of the actual values of k and K.

Therefore, the following two corrections should be considered:

(i) Figs. 4–6, 8, 10–12 are reproduced correctly below.
(ii) The second paragraph in Section 3.3 should be also corrected as:

Similarly, the values of the dimensionless pseudo-adsorption constant $K' = K \times C_0^n$ show a marked dependence on the catalysts concentration. A decrease in K' is observed as the titania concentration is increased, reaching a asymptotic minimum value of 24.5 ± 5.3 for values higher that $0.05\,\mathrm{g\,L^{-1}}$ of TiO_2 (Fig. 7). The variation of both parameters seems to be connected, what is confirmed by the high value of the Pearson's correlation coefficients between k and K calculated by the fitting algorithm.
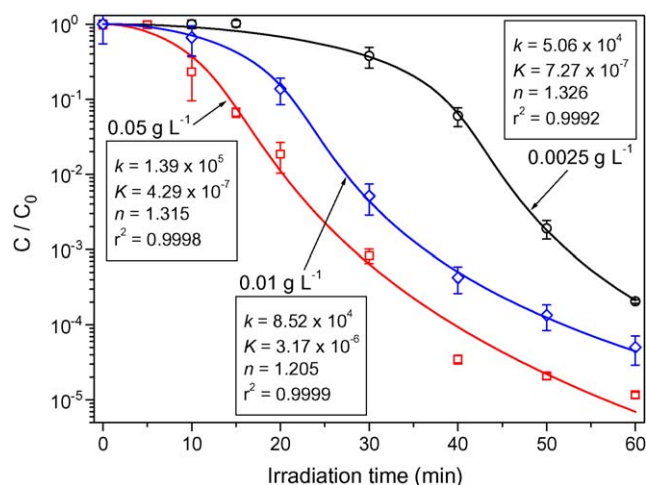
Fig. 4. Fitting of the kinetic model to experimental data of the photocatalytic inactivation of $10^6\,\mathrm{CFU\,mL^{-1}}$ *E. coli* suspensions with different loadings of Degussa P25 TiO_2 (error bars calculated from eight independent bacteria counting measurements). Units of k: $\mathrm{CFU\,mL^{-1}\,min^{-1}}$; units of K: $\mathrm{mL^n\,CFU^{-n}}$; n dimensionless.
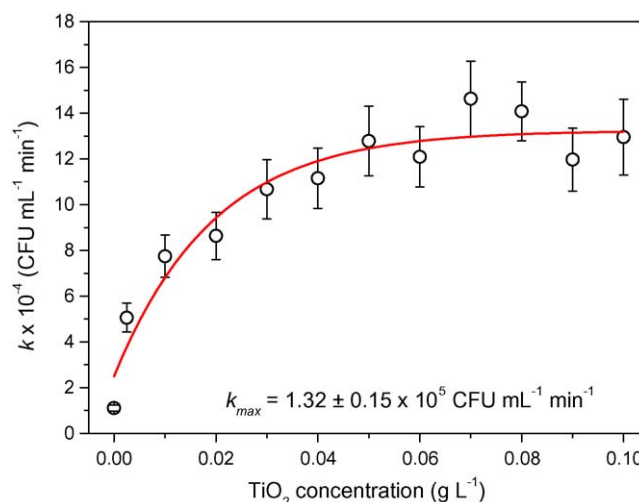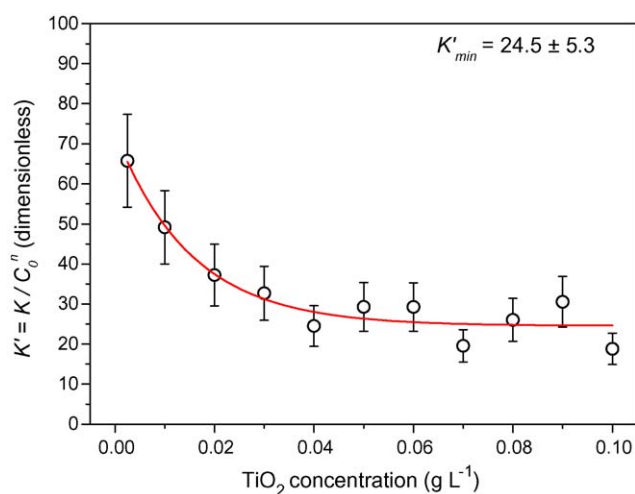
Fig. 5. Influence of Degussa P25 TiO_2 loading on the kinetic constants for the photocatalytic inactivation of $10^6\,\mathrm{CFU\,mL^{-1}}$ *E. coli* suspensions (error bars calculated from two independent experiments).
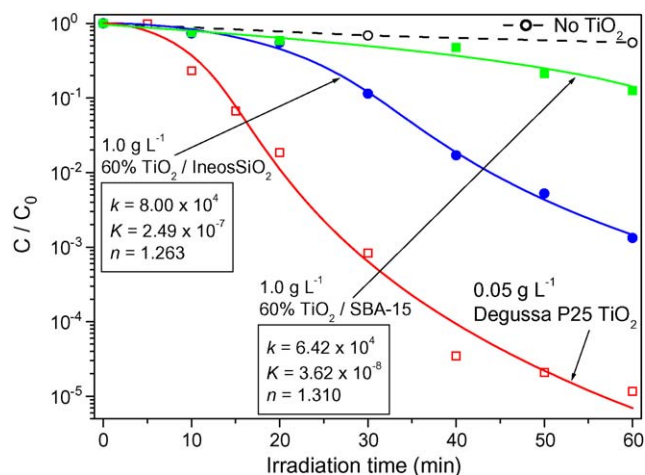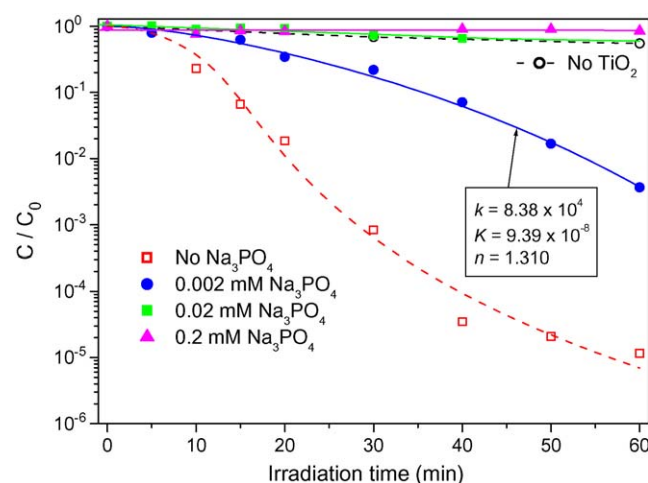
Fig. 6. Influence of Degussa P25 TiO$_2$ loading on the dimensionless pseudo-adsorption constants for the photocatalytic inactivation of 10^6 CFU mL^{-1} *E. coli* suspensions (error bars calculated from two independent experiments).
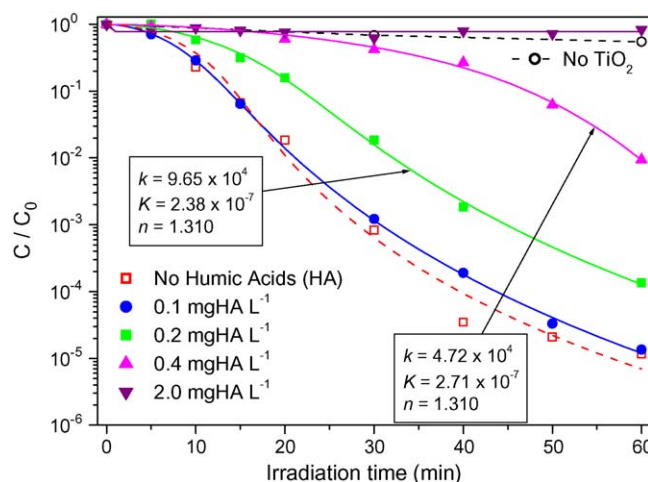

Fig. 8. Photocatalytic inactivation of 10^6 CFU mL^{-1} *E. coli* suspensions with two different silica-supported TiO$_2$ photocatalysts (error bars have been omitted for clarity purposes). Lines show the fitting of the experimental data with the kinetic model represented by Eqs. (16) and (17). Units of k: CFU mL^{-1} min^{-1}; units of K: mL^n CFU^{-n}; n dimensionless.
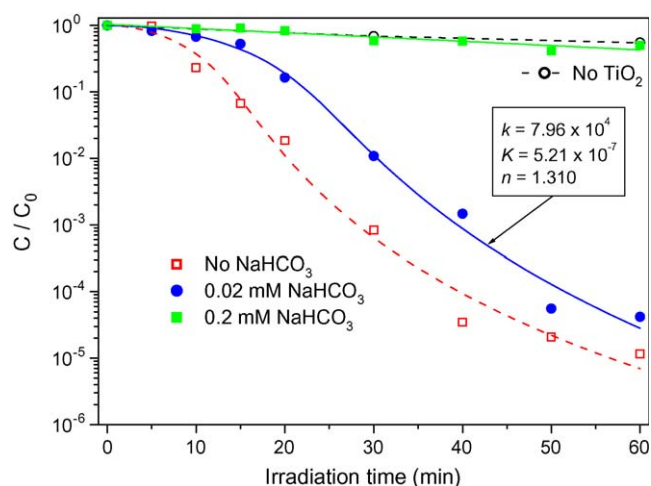
Fig. 10. Influence of the bicarbonate concentration on the photocatalytic inactivation of 10^6 CFU mL^{-1} *E. coli* suspensions with 0.05 g L^{-1} of Degussa P25 TiO$_2$ (error bars have been omitted for clarity purposes). Lines show the fitting of the experimental data with the kinetic model represented by Eqs. (16) and (17). Units of k: CFU mL^{-1} min^{-1}; units of K: mL^n CFU^{-n}; n dimensionless.

Fig. 11. Influence of the phosphate concentration on the photocatalytic inactivation of 10^6 CFU mL^{-1} *E. coli* suspensions with 0.05 g L^{-1} of Degussa P25 TiO$_2$ (error bars have been omitted for clarity purposes). Lines show the fitting of the experimental data with the kinetic model represented by Eqs. (16) and (17). Units of k: CFU mL^{-1} min^{-1}; units of K: mL^n CFU^{-n}; n dimensionless.

Fig. 12. Influence of the humic acids concentration on the photocatalytic inactivation of 10^6 CFU mL^{-1} *E. coli* suspensions with 0.05 g L^{-1} of Degussa P25 TiO$_2$ (error bars have been omitted for clarity purposes). Lines show the fitting of the experimental data with the kinetic model represented by Eqs. (16) and (17). Units of k: CFU mL^{-1} min^{-1}; units of K: mL^n CFU^{-n}; n dimensionless.

Acknowledgements